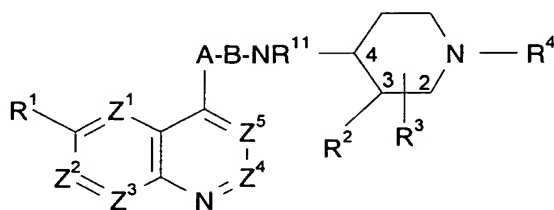


**Amendments to the claims:**

**CLAIMS:**

**What is claimed is:**

1. (Original) A compound of formula (I) or a pharmaceutically acceptable derivative thereof:



(I)

wherein:

one of Z<sup>1</sup>, Z<sup>2</sup>, Z<sup>3</sup>, Z<sup>4</sup> and Z<sup>5</sup> is N, one is CR<sup>1a</sup>, and the remainder are CH, or one of Z<sup>1</sup>, Z<sup>2</sup>, Z<sup>3</sup>, Z<sup>4</sup> and Z<sup>5</sup> is CR<sup>1a</sup>, and the remainder are CH;

R<sup>1</sup> and R<sup>1a</sup> are independently hydrogen; hydroxy; (C<sub>1-6</sub>)alkoxy optionally substituted by (C<sub>1-6</sub>)alkoxy, amino, piperidyl, guanidino or amidino optionally N-substituted by one or two (C<sub>1-6</sub>)alkyl, acyl or (C<sub>1-6</sub>)alkylsulphonyl groups, CONH<sub>2</sub>, hydroxy, thiol, (C<sub>1-6</sub>)alkylthio, heterocyclithio, heterocycloxy, arylthio, aryloxy, acyloxy or (C<sub>1-6</sub>)alkylsulphonyloxy; (C<sub>1-6</sub>)alkoxy-substituted(C<sub>1-6</sub>)alkyl; halogen; (C<sub>1-6</sub>)alkyl; (C<sub>1-6</sub>)alkylthio; nitro; azido; acyl; acyloxy; acylthio; (C<sub>1-6</sub>)alkylsulphonyl; (C<sub>1-6</sub>)alkylsulphoxide; arylsulphonyl; arylsulphoxide or an amino, piperidyl, guanidino or amidino group optionally N-substituted by one or two (C<sub>1-6</sub>)alkyl, acyl or (C<sub>1-6</sub>)alkylsulphonyl groups; and additionally when Z<sup>5</sup> is CR<sup>1a</sup>, R<sup>1a</sup> may be (C<sub>1-4</sub>)alkyl-CO<sub>2</sub>H or (C<sub>1-4</sub>)alkyl-CONH<sub>2</sub> in which the C<sub>1-4</sub> alkyl is substituted by R<sup>12</sup>; (C<sub>1-4</sub>)alkyl substituted by amino, cyano or guanidino; aminocarbonyl optionally substituted by hydroxy, (C<sub>1-6</sub>)alkyl, hydroxy(C<sub>1-6</sub>)alkyl, aminocarbonyl(C<sub>1-6</sub>)alkyl, (C<sub>2-6</sub>)alkenyl, (C<sub>1-6</sub>)alkylsulphonyl, trifluoromethylsulphonyl, (C<sub>2-6</sub>)alkenylsulphonyl, (C<sub>1-6</sub>)alkoxycarbonyl, (C<sub>1-6</sub>)alkylcarbonyl, (C<sub>2-6</sub>)alkenyloxycarbonyl, (C<sub>2-6</sub>)alkenylcarbonyl, or CH(R<sup>13</sup>)CO<sub>2</sub>H or CH(R<sup>13</sup>)CONH<sub>2</sub> optionally further substituted by (C<sub>1-6</sub>)alkyl, hydroxy(C<sub>1-6</sub>)alkyl, aminocarbonyl(C<sub>1-6</sub>)alkyl or (C<sub>2-6</sub>)alkenyl; hydroxy(C<sub>1-6</sub>)alkyl; carboxy; cyano or (C<sub>1-6</sub>)alkoxycarbonyl; wherein R<sup>13</sup> is a natural  $\alpha$ -amino acid side chain, or its enantiomer;

provided that when one of Z<sup>1</sup>, Z<sup>2</sup>, Z<sup>3</sup>, Z<sup>4</sup> and Z<sup>5</sup> is CR<sup>1a</sup> and the remainder are CH, then R<sup>1</sup> is not hydrogen;

R<sup>2</sup> is hydrogen;

R<sup>3</sup> is hydrogen; or

R<sup>3</sup> is in the 2-, 3- or 4-position and is:

carboxy; (C<sub>1-6</sub>)alkoxycarbonyl; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, (C<sub>1-6</sub>)alkyl, hydroxy(C<sub>1-6</sub>)alkyl, aminocarbonyl(C<sub>1-6</sub>)alkyl, (C<sub>2-6</sub>)alkenyl, (C<sub>1-6</sub>)alkylsulphonyl, trifluoromethylsulphonyl, (C<sub>2-6</sub>)alkenylsulphonyl, (C<sub>1-6</sub>)alkoxycarbonyl, (C<sub>1-6</sub>)alkylcarbonyl, (C<sub>2-6</sub>)alkenyloxycarbonyl or (C<sub>2-6</sub>)alkenylcarbonyl and optionally further substituted by (C<sub>1-6</sub>)alkyl, hydroxy(C<sub>1-6</sub>)alkyl, aminocarbonyl(C<sub>1-6</sub>)alkyl or (C<sub>2-6</sub>)alkenyl; cyano; tetrazolyl; 2-oxo-oxazolidinyl optionally substituted by R<sup>10</sup>; 3-hydroxy-3-cyclobutene-1,2-dione-4-yl; 2,4-thiazolidinedione-5-yl; tetrazol-5-ylaminocarbonyl; 1,2,4-triazol-5-yl optionally substituted by R<sup>10</sup>; or 5-oxo-1,2,4-oxadiazol-3-yl; or

(C<sub>1-4</sub>)alkyl or ethenyl optionally substituted with any of the substituents listed above for R<sup>3</sup> and/or up to 3 groups R<sup>12</sup> independently selected from:

thiol; halogen; (C<sub>1-6</sub>)alkylthio; trifluoromethyl; azido; (C<sub>1-6</sub>)alkoxycarbonyl; (C<sub>1-6</sub>)alkylcarbonyl; (C<sub>2-6</sub>)alkenyloxycarbonyl; (C<sub>2-6</sub>)alkenylcarbonyl; hydroxy optionally substituted by (C<sub>1-6</sub>)alkyl, (C<sub>2-6</sub>)alkenyl, (C<sub>1-6</sub>)alkoxycarbonyl, (C<sub>1-6</sub>)alkylcarbonyl, (C<sub>2-6</sub>)alkenyloxycarbonyl, (C<sub>2-6</sub>)alkenylcarbonyl or aminocarbonyl wherein the amino group is optionally substituted by (C<sub>1-6</sub>)alkyl, (C<sub>2-6</sub>)alkenyl, (C<sub>1-6</sub>)alkylcarbonyl or (C<sub>2-6</sub>)alkenylcarbonyl; amino optionally mono- or disubstituted by (C<sub>1-6</sub>)alkoxycarbonyl, (C<sub>1-6</sub>)alkylcarbonyl, (C<sub>2-6</sub>)alkenyloxycarbonyl, (C<sub>2-6</sub>)alkenylcarbonyl, (C<sub>1-6</sub>)alkyl, (C<sub>2-6</sub>)alkenyl, (C<sub>1-6</sub>)alkylsulphonyl, (C<sub>2-6</sub>)alkenylsulphonyl or aminocarbonyl wherein the amino group is optionally substituted by (C<sub>1-6</sub>)alkyl or (C<sub>2-6</sub>)alkenyl; aminocarbonyl wherein the amino group is optionally substituted by (C<sub>1-6</sub>)alkyl, hydroxy(C<sub>1-6</sub>)alkyl, aminocarbonyl(C<sub>1-6</sub>)alkyl, (C<sub>2-6</sub>)alkenyl, (C<sub>1-6</sub>)alkoxycarbonyl, (C<sub>1-6</sub>)alkylcarbonyl, (C<sub>2-6</sub>)alkenyloxycarbonyl or (C<sub>2-6</sub>)alkenylcarbonyl and optionally further substituted by (C<sub>1-6</sub>)alkyl, hydroxy(C<sub>1-6</sub>)alkyl, aminocarbonyl(C<sub>1-6</sub>)alkyl or (C<sub>2-6</sub>)alkenyl; oxo; (C<sub>1-6</sub>)alkylsulphonyl; (C<sub>2-6</sub>)alkenylsulphonyl; or (C<sub>1-6</sub>)aminosulphonyl wherein the amino group is optionally substituted by (C<sub>1-6</sub>)alkyl or (C<sub>2-6</sub>)alkenyl;

in addition when R<sup>3</sup> is disubstituted with a hydroxy or amino containing substituent and a carboxy containing substituent these may together form a cyclic ester or amide linkage, respectively; or

when  $R^3$  is in the 3-position  $R^2$  and  $R^3$  may together form a divalent residue  $=CR^{5^1}R^{6^1}$  where  $R^{5^1}$  and  $R^{6^1}$  are independently selected from hydrogen, (C<sub>1-6</sub>)alkyl, (C<sub>2-6</sub>)alkenyl, aryl(C<sub>1-6</sub>)alkyl and aryl(C<sub>2-6</sub>)alkenyl, any alkyl or alkenyl moiety being optionally substituted by up to three  $R^{12}$  groups;

$R^4$  is a group  $-CH_2-R^5$  in which  $R^5$  is selected from:

(C<sub>1-12</sub>)alkyl; hydroxy(C<sub>1-12</sub>)alkyl; (C<sub>1-12</sub>)alkoxy(C<sub>1-12</sub>)alkyl; (C<sub>1-12</sub>)alkanoyloxy(C<sub>1-12</sub>)alkyl; (C<sub>3-6</sub>)cycloalkyl; hydroxy(C<sub>3-6</sub>)cycloalkyl; (C<sub>1-12</sub>)alkoxy(C<sub>3-6</sub>)cycloalkyl; (C<sub>1-12</sub>)alkanoyloxy(C<sub>3-6</sub>)cycloalkyl; (C<sub>3-6</sub>)cycloalkyl(C<sub>1-12</sub>)alkyl; hydroxy-, (C<sub>1-12</sub>)alkoxy- or (C<sub>1-12</sub>)alkanoyloxy-(C<sub>3-6</sub>)cycloalkyl(C<sub>1-12</sub>)alkyl; cyano; cyano(C<sub>1-12</sub>)alkyl; (C<sub>2-12</sub>)alkenyl; (C<sub>2-12</sub>)alkynyl; tetrahydrofuryl; mono- or di-(C<sub>1-12</sub>)alkylamino(C<sub>1-12</sub>)alkyl; acylamino(C<sub>1-12</sub>)alkyl; (C<sub>1-12</sub>)alkyl- or acyl-aminocarbonyl(C<sub>1-12</sub>)alkyl; mono- or di-(C<sub>1-12</sub>)alkylamino(hydroxy) (C<sub>1-12</sub>)alkyl; optionally substituted phenyl(C<sub>1-12</sub>)alkyl, phenoxy(C<sub>1-12</sub>)alkyl or phenyl(hydroxy)(C<sub>1-12</sub>)alkyl; optionally substituted diphenyl(C<sub>1-12</sub>)alkyl; optionally substituted phenyl(C<sub>2-12</sub>)alkenyl; optionally substituted benzoyl or benzoyl(C<sub>1-12</sub>)alkyl; optionally substituted heteroaryl or heteroaryl(C<sub>1-12</sub>)alkyl; and optionally substituted heteroaroyl or heteroaroyl(C<sub>1-12</sub>)alkyl;

A is  $CR^6R^7$  and B is  $SO_2$ , CO or  $CH_2$  wherein:

each of  $R^6$  and  $R^7$  is independently selected from: hydrogen; (C<sub>1-6</sub>)alkoxy; thiol; (C<sub>1-6</sub>)alkylthio; halo; trifluoromethyl; azido; (C<sub>1-6</sub>)alkyl; (C<sub>2-6</sub>)alkenyl; (C<sub>1-6</sub>)alkoxycarbonyl; (C<sub>1-6</sub>)alkylcarbonyl; (C<sub>2-6</sub>)alkenyloxycarbonyl; (C<sub>2-6</sub>)alkenylcarbonyl; hydroxy, amino or aminocarbonyl optionally substituted as for corresponding substituents in  $R^3$ ; (C<sub>1-6</sub>)alkylsulphonyl; (C<sub>2-6</sub>)alkenylsulphonyl; or (C<sub>1-6</sub>)aminosulphonyl wherein the amino group is optionally substituted by (C<sub>1-6</sub>)alkyl or (C<sub>2-6</sub>)alkenyl;

$R^{10}$  is selected from (C<sub>1-4</sub>)alkyl; (C<sub>2-4</sub>)alkenyl and aryl any of which may be optionally substituted by a group  $R^{12}$  as defined above; carboxy; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, (C<sub>1-6</sub>)alkyl, (C<sub>2-6</sub>)alkenyl, (C<sub>1-6</sub>)alkylsulphonyl, trifluoromethylsulphonyl, (C<sub>2-6</sub>)alkenylsulphonyl, (C<sub>1-6</sub>)alkoxycarbonyl, (C<sub>1-6</sub>)alkylcarbonyl, (C<sub>2-6</sub>)alkenyloxycarbonyl or (C<sub>2-6</sub>)alkenylcarbonyl and optionally further substituted by (C<sub>1-6</sub>)alkyl or (C<sub>2-6</sub>)alkenyl; (C<sub>1-6</sub>)alkylsulphonyl; trifluoromethylsulphonyl; (C<sub>2-6</sub>)alkenylsulphonyl; (C<sub>1-6</sub>)alkoxycarbonyl; (C<sub>1-6</sub>)alkylcarbonyl; (C<sub>2-6</sub>)alkenyloxycarbonyl; and (C<sub>2-6</sub>)alkenylcarbonyl;

and R<sup>11</sup> is hydrogen; or (C<sub>1-4</sub>)alkyl or (C<sub>2-4</sub>)alkenyl optionally substituted with 1 to 3 groups selected from:

carboxy; (C<sub>1-4</sub>)alkoxycarbonyl; (C<sub>1-4</sub>)alkylcarbonyl; (C<sub>2-4</sub>)alkenyloxycarbonyl; (C<sub>2-4</sub>)alkenylcarbonyl; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, (C<sub>1-4</sub>)alkyl, hydroxy(C<sub>1-4</sub>)alkyl, aminocarbonyl(C<sub>1-4</sub>)alkyl, (C<sub>2-4</sub>)alkenyl, (C<sub>1-4</sub>)alkylsulphonyl, trifluoromethylsulphonyl, (C<sub>2-4</sub>)alkenylsulphonyl, (C<sub>1-4</sub>)alkoxycarbonyl, (C<sub>1-4</sub>)alkylcarbonyl, (C<sub>2-4</sub>)alkenyloxycarbonyl or (C<sub>2-4</sub>)alkenylcarbonyl; cyano; tetrazolyl; 2-oxo-oxazolidinyl optionally substituted by R<sup>10</sup>; 3-hydroxy-3-cyclobutene-1,2-dione-4-yl; 2,4-thiazolidinedione-5-yl; tetrazol-5-ylaminocarbonyl; 1,2,4-triazol-5-yl optionally substituted by R<sup>10</sup>; 5-oxo-1,2,4-oxadiazol-3-yl; thiol; halogen; (C<sub>1-4</sub>)alkylthio; trifluoromethyl; azido; hydroxy optionally substituted by (C<sub>1-4</sub>)alkyl, (C<sub>2-4</sub>)alkenyl, (C<sub>1-4</sub>)alkoxycarbonyl, (C<sub>1-4</sub>)alkylcarbonyl, (C<sub>2-4</sub>)alkenyloxycarbonyl, (C<sub>2-4</sub>)alkenylcarbonyl; oxo; (C<sub>1-4</sub>)alkylsulphonyl; (C<sub>2-4</sub>)alkenylsulphonyl; or (C<sub>1-4</sub>)aminosulphonyl wherein the amino group is optionally substituted by (C<sub>1-4</sub>)alkyl or (C<sub>2-4</sub>)alkenyl.

2. (Original) A compound according to claim 1 wherein:

(a) Z<sup>1</sup> is N, and Z<sup>2</sup>-Z<sup>5</sup> are CH,

(b) Z<sup>1</sup>-Z<sup>5</sup> are each CH, or

(c) Z<sup>5</sup> is N, and Z<sup>1</sup>-Z<sup>4</sup> are CH,

and Z<sup>3</sup> may instead be CF.

3. (Currently Amended) A compound according to claim 1 or 2 wherein R<sup>1</sup> and R<sup>1a</sup> are independently methoxy, amino(C<sub>3-5</sub>)alkyloxy, guanidino(C<sub>3-5</sub>)alkyloxy, piperidyl(C<sub>3-5</sub>)alkyloxy, nitro or fluoro.

4. (Currently Amended) A compound according to ~~any one of the preceding claims~~ claim 1 wherein R<sup>3</sup> is hydrogen; (C<sub>1-4</sub>)alkyl; ethenyl; optionally substituted 1-hydroxy(C<sub>1-4</sub>)alkyl; carboxy; (C<sub>1-6</sub>)alkoxycarbonyl; optionally substituted aminocarbonyl; carboxy(C<sub>1-4</sub>)alkyl; optionally substituted aminocarbonyl(C<sub>1-4</sub>)alkyl; cyano(C<sub>1-4</sub>)alkyl; optionally substituted 2-oxo-oxazolidinyl or optionally substituted 2-oxo-oxazolidinyl(C<sub>1-4</sub>alkyl).

5. (Currently Amended) A compound according to ~~any one of the preceding claims~~ claim 1 wherein R<sup>3</sup> is in the 3-position and the substituents at the 3- and 4-position of the piperidine ring are *cis*.

6. (Currently Amended) A compound according to ~~any one of the preceding claims~~ claim 1 wherein A is CHOH or CH<sub>2</sub>, and B is CH<sub>2</sub>.

7. (Currently Amended) A compound according to ~~any one of the preceding claims~~ claim 1 wherein R<sup>11</sup> is hydrogen.

8. (Currently Amended) A compound according to ~~any one of the preceding claims~~ claim 1 wherein R<sup>4</sup> is (C<sub>5-12</sub>)alkyl, optionally substituted phenyl(C<sub>2-3</sub>)alkyl or optionally substituted phenyl(C<sub>3-4</sub>)alkenyl.

9. (Original) A compound according to claim 1 selected from:

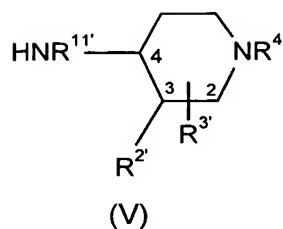
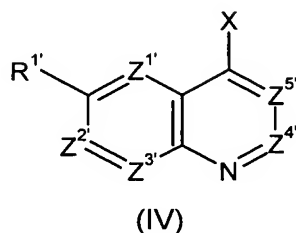
1-Heptyl-4-[2-(R)-hydroxy-2-(6-methoxyquinolin-4-yl)]ethylaminopiperidine;  
cis-3-(R/S)-Ethoxycarbonyl-1-heptyl-4-(S/R)-[2-(R)-hydroxy-2-(6-methoxyquinolin-4-yl)]ethylaminopiperidine;  
cis-3-(R/S)-Aminocarbonyl-1-heptyl-4-(S/R)-[2-(R)-hydroxy-2-(6-methoxyquinolin-4-yl)]ethylaminopiperidine;  
cis-1-Heptyl-3-(R/S)-hydroxymethyl-4-(S/R)-[2-(R)-hydroxy-2-(6-methoxyquinolin-4-yl)]ethylaminopiperidine;  
cis-3-(R/S)-carboxy-1-heptyl-4-(S/R)-[2-(R)-hydroxy-2-(6-methoxyquinolin-4-yl)]ethylaminopiperidine;  
1-Heptyl-4-[2-(S)-hydroxy-2-(6-methoxyquinolin-4-yl)]ethylaminopiperidine; or  
1-Heptyl-4-[2-(R)-hydroxy-2-(6-methoxyquinolin-4-yl)]ethyl(N-methyl)aminopiperidine;  
or a pharmaceutically acceptable derivative thereof.

10. (Original) A pharmaceutical composition comprising a compound of formula (I) as defined in claim 1, or a pharmaceutically acceptable derivative thereof, and a pharmaceutically acceptable carrier.

11. (Original) A method of treatment of bacterial infections in mammals which method comprises the administration to a mammal in need of such treatment an effective amount of a compound of formula (I) as defined in claim 1, or a pharmaceutically acceptable derivative thereof.

12. (Cancelled).

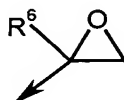
13. (Original) A process for preparing a compound of formula (I) as defined in claim 1, or a pharmaceutically acceptable derivative thereof, which process comprises:  
reacting a compound of formula (IV) with a compound of formula (V):



wherein  $Z^{1'}$ ,  $Z^{2'}$ ,  $Z^{3'}$ ,  $Z^{4'}$ ,  $Z^{5'}$ ,  $R^{11'}$ ,  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  are  $Z^1$ ,  $Z^2$ ,  $Z^3$ ,  $Z^4$ ,  $Z^5$ ,  $R^{11}$ ,  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  as defined in formula (I) or groups convertible thereto;  
 and:

- (i) X is  $CR^6R^7SO_2W$
- (ii) X is  $A'-COW$
- (iii) X is  $CR^6=CH_2$
- (iv) X is oxirane and

in which W is a leaving group e.g. halogen,  $A'$  is A as defined in formula (I), or a group convertible thereto, and oxirane is:



wherein  $R^6$  and  $R^7$  are as defined in formula (I);  
 and thereafter optionally or as necessary converting  $Z^{1'}$ ,  $Z^{2'}$ ,  $Z^{3'}$ ,  $Z^{4'}$ ,  $Z^{5'}$ ,  $A'$ ,  $R^{11'}$ ,  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$  to  $Z^1$ ,  $Z^2$ ,  $Z^3$ ,  $Z^4$ ,  $Z^5$ , A,  $R^{11}$ ,  $R^1$ ,  $R^2$ ,  $R^3$  and  $R^4$ , converting A-B to other A-B, interconverting  $R^{11}$ ,  $R^1$ ,  $R^2$ ,  $R^3$  and/or  $R^4$ , and/or forming a pharmaceutically acceptable derivative thereof.